UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/930,655	08/15/2001	Erik De Meersman	BE 000015	1915

24737 7590 05/17/2006

PHILIPS INTELLECTUAL PROPERTY & STANDARDS
P.O. BOX 3001
BRIARCLIFF MANOR, NY 10510

EXAMINER	
TOPGYAL, GELEK W	
ART UNIT	PAPER NUMBER
2621	

DATE MAILED: 05/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/930,655	DE MEERSMAN, ERIK	
	Examiner	Art Unit	
	Gelek Topgyal	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 March 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *27 March 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed on March 27, 2006 have been fully considered but they are not persuasive.

In re pages 6-8, applicant argue that both Aaltonen and Singh et al. find it necessary to sub-sample one of the video signals and then to replace information in the other of the video signals with the sub- sampled video signal in order to combine the video signals prior to decoding. Applicant argues that claim 1 teaches a combining means that losslessly combines at least two input picture signals, and that Aaltonen and Singh et al. combines them losslessly.

Further, the applicant argues that the composing means of the subject invention processes the decoded video signal, while in both Aaltonen and Singh et al., the composing is performed prior to the decoding.

In response, the examiner respectfully disagrees. Aaltonen discloses in col. 4, lines 20-54 and as shown in Fig. 2, a system that combines a signal ES1 with ES2'. Although ES2' is a scaled version of signal ES2, the combining of the two signals is implemented by selector 232 in conjunction with timer 233, and therefore at the specific moment of combining, no information is lost at selector 232. The selector 232 in conjunction with the timer 233 defines a multiplexer, which anticipates the claimed combining means of claim 1, and therefore during the multiplexing of several video signals no information is lost, and therefore it is losslessly combined.

Furthermore, as argued by the applicant, a different embodiment (Fig. 5) shows a selector 545, that combines two non-scaled video signals (ES1 and ES3). The host processor, much like the timer 233 in Fig. 2 that controls selector 232, controls the selector 545 in Fig. 5 to provide a multiplexer. Therefore in a multiplexer, during the process of combining video signals, information is losslessly combined.

As argued by the applicant, Singh teaches in col. 4, line 49- col. 5, line 20 of two separately decoded video signals from Panel 2 Selector 77, and Color decoder 76 by way of Panel 1 Selector 75 are combined by Double Window DSP 71 to form a composite signal that is sent to the display unit.

Furthermore, Aaltonen solves the same problem as that of the subject invention in that it reduces the number of decoders required in a system to improve cost efficiency. With reference to Fig. 5, the selector 545, PIP-unit 530, and the decoder 510, can be referred to as a single unit that collectively performs the task of: combining, decoding, and composing means to generate a PIP or a DW signal as in claim 1.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-4, 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aaltonen and in further view of Singh as set forth in paragraph #3 of the last Office Action.

Claim 1 teaches a circuit (2) for generating a composite output picture signal (6) such as a picture signal (36) comprising a PIP (Picture-in Picture) signal (38), or a DW (Double Window) signal, on the basis of at least two input picture signals (4.1, 4.2), the circuit comprising:

- color decoding means (8) for decoding the at least two input picture signals (4.1, 4.2), the color decoding means (8) comprising combining means (14) for combining the at least two input picture signals into one combined picture signal (16) (Aaltonen teaches a PIP system which has an input from the front end 551 that is already combined, but fails to teach a means for combining at least two input signals. Singh teaches in col. 4, lines 27-38 of a PIP DSP processor 65 that combines two signals into one. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine two signals into one and incorporate it into Aaltonen's system to allow for multiple signals as inputs into the system); and
- composing means (10) for generating the composite output picture signal (6) on the basis of the single decoded combined picture signal (12) (Aaltonen describes in col. 6, lines 12-18 and col. 4, lines 26-45 of TS de-multiplexers 541 and 542 that outputs several videos to a PIP unit 230 that combines these signals into one.)

Claim 2 teaches a circuit according to claim 1, wherein the combining means (14) comprise a multiplexer for time multiplexing the at least two input picture signals (4.1, 4.2) so as to obtain the one combined picture signal (16).

Aaltonen teaches a PIP system which has an input from the front end 551 that is already multiplexed, but fails to teach a means for multiplexing two signals together. Singh teaches in col. 4, lines 27-38 of a PIP DSP processor 65 that combines two signals into one by way of a multiplexer. It would have been obvious to one of ordinary skill in the art at the time the invention was made to multiplex two signals and incorporate the multiplexed signal as inputs into Aaltonen's system because multiplexing allows for multiple signals to be transmitted in a single channel.

Claim 3 teaches a circuit according to claim 2, wherein the multiplexer comprises a buffer-memory.

Aaltonen teaches a PIP system which uses only one decoder, but fails to teach of a multiplexer that comprises a buffer-memory. Singh teaches in Fig. 5, of a memory device 56 that is connected to the PIP DSP processor (which does the multiplexing) by way of element 53. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a buffer memory to allow for temporary storage of data.

Claim 4 teaches a circuit according to claim 1, wherein the composing means (10) comprise a de-multiplexer (26) for the time de-multiplexing of the decoded combined picture signal (12) into at least two decoded picture signals

(30.1, 30.2) for further processing (28) to obtain the composite output picture signal (6).

Aaltonen teaches in col. 6, lines 16-18 of a de-multiplexer that extracts separate information from a multiplexed signal. The extracted information is then sent to the PIP unit 530 for further processing.

Claim 6 teaches a television apparatus provided with a circuit (2) according to claim 1, and a display device (D) for displaying the composite output picture signal (6).

Aaltonen teaches in Fig. 3 of a display device that displays the video signal (VDO) output by the single decoder PIP system.

Claim 7 teaches a video tape recorder provided with a circuit according to claim 1.

Aaltonen teaches a system that relates to a device and method for decoding a plurality of video signals using one decoder and mentions that a DVD can be a source of a signal, but fails to specifically mention that a VTR can be a source of video signal. Singh teaches in col. 2, lines 27-30 that a VCR can be a source of a video signal. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a video tape recorder as a source of video signal because it is common and conventional in the art.

Response to Arguments

4. Applicant's arguments filed March 27, 2006 have been fully considered but they are not persuasive.

In re pages 8, applicant argues that, for the arguments described above with respect to claim 1, Aaltonen and Singh would not anticipate or suggest claim 1 and so does not anticipate or suggest claim 5 that depend on claim 1 and that the examiner does not rely upon Norsworthy et al to suggest claim 1 and so the combination of Aaltonen, Singh et al, and Norsworthy et al as relied upon by the examiner does not anticipate or suggest claim 1 or its dependent claims including claim 5.

In response, as discussed above in paragraph #1, Aaltonen and Singh disclose all the features of claim 1.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Aaltonen in view of Singh, and further in view of Norsworthy as set forth in paragraph #4 of the last Office Action.

Claim 5 teaches a circuit according to claim 4, wherein the composing means (10) further comprise a memory (24) and a micro-processor (28) for the further processing of the at least two decoded picture signals (30.1, 30.2)

The proposed combination of Aaltonen and Singh discloses all the limitations as discussed in claims 1 and 4 above, and further discloses a processor that controls the PIP unit 230 and a de-multiplexer that separates video signals (Aaltonen, col. 6, lines 33-47), but fails to teach of a memory device. Norsworthy teaches in col. 4, lines 18-24 of a memory device that is used in conjunction with a video processing unit 15 that displays picture-in-picture information. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a memory unit to allow for correction of time delay or for synchronizing multiple signals.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gelek Topgyal whose telephone number is 571-272-8891. The examiner can normally be reached on 8:30am -5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thai Tran can be reached on 571-272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Gelek Topgyal
5/9/2006